

Appl. No. 09/901433
Amdt. dated Feb. 24, 2004
Reply to Office action of Nov. 19, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Original) A process for treating an exhaust gas let out from CVD system for forming a silicon film using halogenosilane gas, the process comprising the steps of:
subjecting of an unreacted raw gas and intermediate products included in the exhaust gas to a partial decomposition or conversion reaction treatment using a transition metal reacting agent for thermal-swing between room temperature and 500°C;
separating and recovering the obtained halogenosilane gas and hydrogen chloride gas.
2. (Original) A process for treating an exhaust gas let out from CVD system for forming a silicon film using halogenosilane gas, the process comprising the steps of:
subjecting an unreacted raw gas and intermediate products included in the exhaust gas to a full decomposition or conversion reaction treatment using a transition metal reacting agent for thermal-swing between room temperature and 500°C; and
separating and recovering the hydrogen chloride gas of the decomposed product.
3. (Withdrawn) An apparatus for treating an exhaust gas let out from CVD system for forming a silicon film using halogenosilane gas, the apparatus comprising:
decomposition means for subjecting a transition metal reacting agent to thermal-swing between room temperature and 500°C to partially decompose an unreacted raw gas and intermediate products contained in the exhaust gas;
separation reaction means for separating the halogenosilane gas and hydrogen chloride from the exhaust gas let out from said decomposition means;
vapor-liquid contacting means for bring the hydrogen chloride separated by said separation reaction means into contact with water; and
gas recovery means for reusing the halogenosilane.

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4. (Withdrawn) An apparatus for treating an exhaust gas let out from CVD system for forming a silicon film using halogenosilane gas, the apparatus comprising:

decomposition means for subjecting a transition metal reacting agent for thermal-swing between room temperature and 500°C to entirely decompose an unreacted raw gas and intermediate products contained in the exhaust gas; and

vapor-liquid contacting means for bring the hydrogen chloride separated by said separation reaction means into contact with water.